



# ***STIC Search Report***

## ***Biotech-Chem Library***

**STIC Database Tracking Number: 173570**

**TO: Deborah Lambkin**  
**Location: REM-5C09&5C18**  
**Art Unit: 1626**  
**December 21, 2005**

**Case Serial Number: 10/719465**

**From: P. Sheppard**  
**Location: Remsen Building**  
**Phone: (571) 272-2529**

**sheppard@uspto.gov**

### **Search Notes**

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(FILE 'REGISTRY' ENTERED AT 11:28:13 ON 21 DEC 2005)

L3 STR  
L4 50 SEA SSS SAM L3  
L5 27407 SEA SSS FUL L3  
L6 STR  
L7 55 SEA SUB=L5 SSS FUL L6

FILE 'HCAPLUS' ENTERED AT 12:00:59 ON 21 DEC 2005

L8 6 SEA ABB=ON PLU=ON L7  
D STAT QUE  
D IBIB ABS HITSTR L8 1-6

FILE HCAPLUS

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FILE COVERS 1907 - 21 Dec 2005 VOL 143 ISS 26  
FILE LAST UPDATED: 20 Dec 2005 (20051220/ED)

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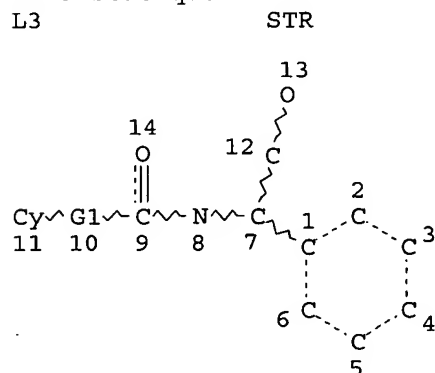
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New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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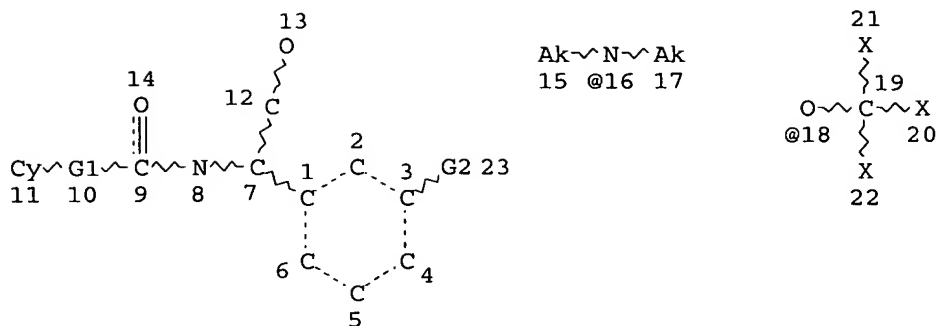
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 DEFAULT ECLEVEL IS LIMITED

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 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE  
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 L6 STR



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 DEFAULT ECLEVEL IS LIMITED

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 L8 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L7

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L8 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:470948 HCAPLUS  
 DOCUMENT NUMBER: 141:38448  
 TITLE: Preparation of arylcyclopropylcarboxylic amides as  
 potassium channel openers  
 INVENTOR(S): Wu, Yong-jin; Sun, Li-qiang; L'heureux, Alexandre  
 PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA  
 SOURCE: PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2004047738   | A2   | 20040610 | WO 2003-US37305 | 20031121 |
| WO 2004047738   | A3   | 20041007 |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,<br>LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,<br>NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,<br>TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW<br>RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, |      |          |                 |          |

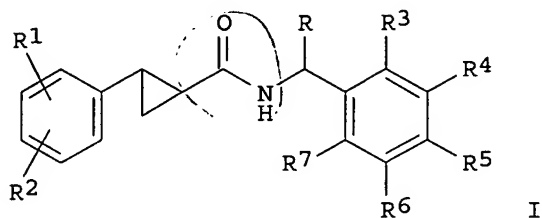
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004110754 A1 20040610 US 2003-719184 20031121  
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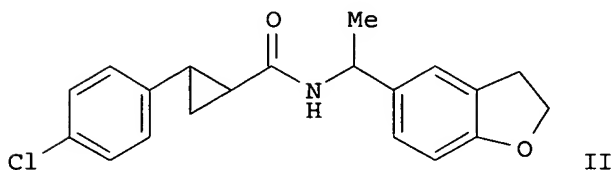
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRIORITY APPLN. INFO.: US 2002-428337P P 20021122  
 WO 2003-US37305 W 20031121

OTHER SOURCE(S): MARPAT 141:38448  
 GI



564 / 182  
 564 / 817



564 / 468  
 564 / 471

AB The title compds. [I; R = alkyl, CF<sub>3</sub>, hydroxymethyl; R<sub>1</sub>, R<sub>2</sub> = H, alkyl, halo, morpholin-4-yl; R<sub>4</sub> = (un)substituted morpholin-4-yl, pyridinyl, pyrimidinyl, etc.; R<sub>5</sub> = H, F; or R<sub>4</sub> and R<sub>5</sub> taken together = CH:CHCH:CH, CH<sub>2</sub>CH<sub>2</sub>O; R<sub>3</sub>, R<sub>6</sub>, R<sub>7</sub> = H, F] which are openers or activators of KCNQ potassium channels (biol. data given), were prepared. Thus, amidation of 1-(2,3-dihydrobenzofuran-5-yl)ethylamine with 2-(4-chlorophenyl)cyclopropanecarboxylic acid afforded the amide II. The present invention also provides pharmaceutical compns. comprising the compds. I, and the method of treatment of disorders sensitive to KCNQ potassium channel opening activity such as migraine or a migraine attack, bipolar disorders, epilepsy, acute and chronic pain and anxiety.

IT 701913-77-1P 701913-78-2P 701913-79-3P  
 701913-80-6P 701913-81-7P 701913-82-8P  
 701913-83-9P 701913-84-0P

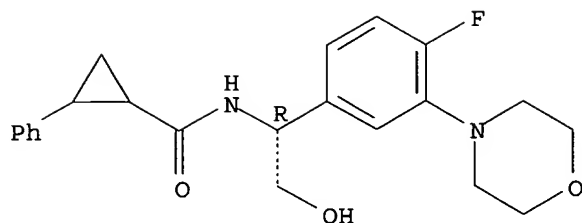
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of arylcyclopropanecarboxamides as potassium channel openers)

RN 701913-77-1 HCAPLUS

CN Cyclopropanecarboxamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-2-phenyl- (9CI) (CA INDEX NAME)

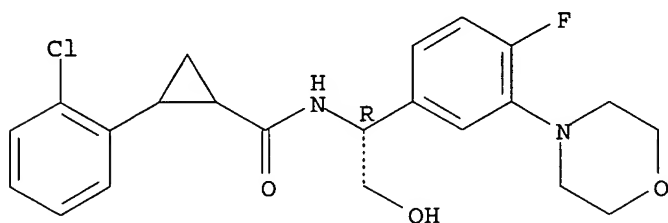
Absolute stereochemistry.



RN 701913-78-2 HCAPLUS

CN Cyclopropanecarboxamide, 2-(2-chlorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]- (9CI) (CA INDEX NAME)

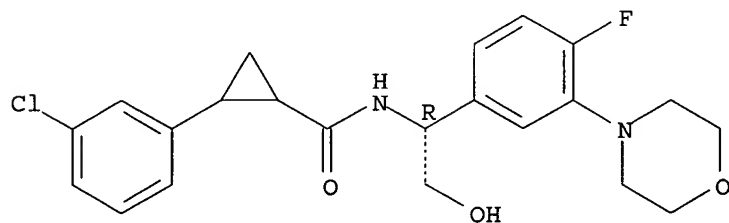
Absolute stereochemistry.



RN 701913-79-3 HCAPLUS

CN Cyclopropanecarboxamide, 2-(3-chlorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]- (9CI) (CA INDEX NAME)

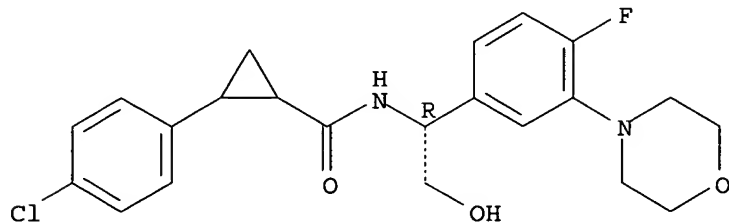
Absolute stereochemistry.



RN 701913-80-6 HCAPLUS

CN Cyclopropanecarboxamide, 2-(4-chlorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

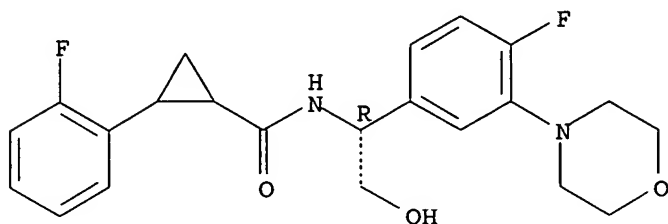


RN 701913-81-7 HCAPLUS



CN Cyclopropanecarboxamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-2-(2-fluorophenyl)- (9CI) (CA INDEX NAME)

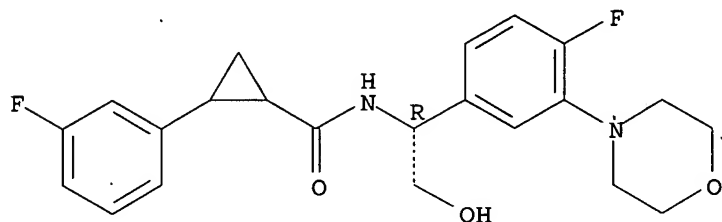
Absolute stereochemistry.



RN 701913-82-8 HCAPLUS

CN Cyclopropanecarboxamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-2-(3-fluorophenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

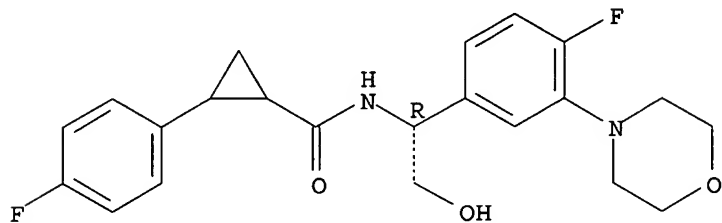


544/169  
514/238.2

RN 701913-83-9 HCAPLUS

CN Cyclopropanecarboxamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

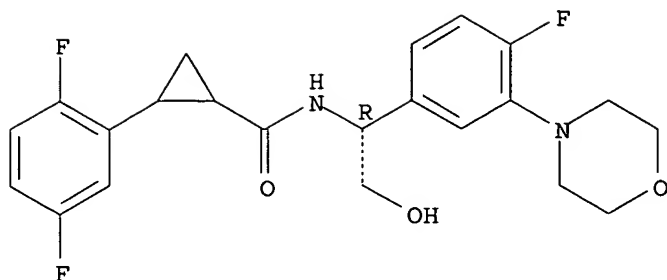
Absolute stereochemistry.



RN 701913-84-0 HCAPLUS

CN Cyclopropanecarboxamide, 2-(2,5-difluorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:467693 HCAPLUS

DOCUMENT NUMBER: 141:38621

TITLE: Preparation of N-(1-aryl-2-hydroxyethyl) amides as potassium channel openers

INVENTOR(S): Wu, Yong-Jin; Sun, Li-Qiang; He, Huan; L'Heureux, Alexandre

PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

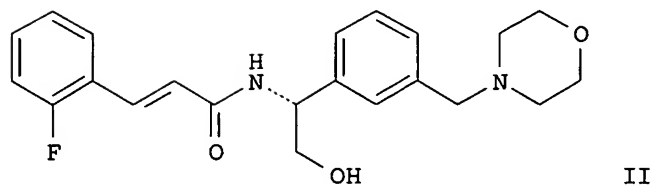
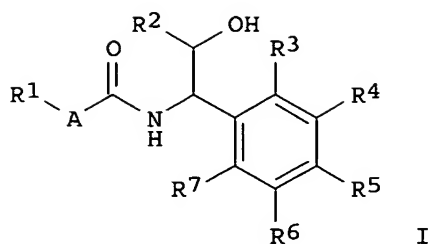
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE             | APPLICATION NO. | DATE       |
|---|------|------------------|-----------------|------------|
| WO 2004047743   | A2   | 20040610         | WO 2003-US37348 | 20031121   |
| WO 2004047743   | A3   | 20040729         |                 |            |
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| RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |                  |                 |            |
| US 2004122007   | A1   | 20040624         | US 2003-719465  | 20031121   |
| EP 1581510  | A2   | 20051005         | EP 2003-789925  | 20031121   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |      |                  |                 |            |
| PRIORITY APPLN. INFO.:  |      |                  | US 2002-428338P | P 20021122 |
|   |      |                  | WO 2003-US37348 | W 20031121 |
| OTHER SOURCE(S):  |      | MARPAT 141:38621 |                 |            |
| GI  |      |                  |                 |            |



AB The title compds. [I; R1 = pyridinyl, 3-quinolinyl, 2-thienyl, furanyl, cycloalkyl, Ph; A = CH:CH, (CH2)n; R2 = H, hydroxymethyl; n = 0-2; R4 = dialkylamino, OCF3, morpholin-4-yl, etc.; R5 = H, F; or R4 and R5 taken together = (un)substituted CH:CHCH:CH; R3, R6, R7 = H, F] which are openers or activators of KCNQ potassium channels (biol. data given), were prepared. Thus, amidation of (R)-2-amino-2-[3-(morpholin-4-ylmethyl)phenyl]ethanol hydrochloride (preparation given) with 2-fluorocinnamic acid afforded (R)-II. The present invention also provides pharmaceutical compns. comprising compds. I and the method of treatment of disorders sensitive to KCNQ potassium channel opening activity such as migraine or a migraine attack, bipolar disorders, epilepsy, acute and chronic pain and anxiety.

IT 701942-88-3P 701942-89-4P 701942-90-7P  
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

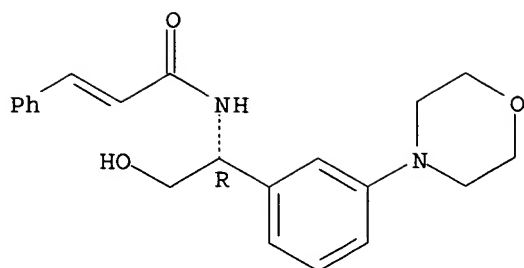
(preparation of N-(1-aryl-2-hydroxyethyl) amides as potassium channel openers)

RN 701942-88-3 HCAPLUS

CN 2-Propenamide, N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]-3-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

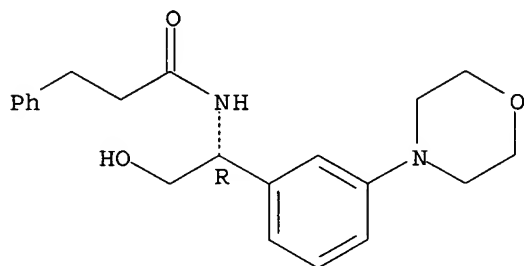
Double bond geometry unknown.



RN 701942-89-4 HCAPLUS

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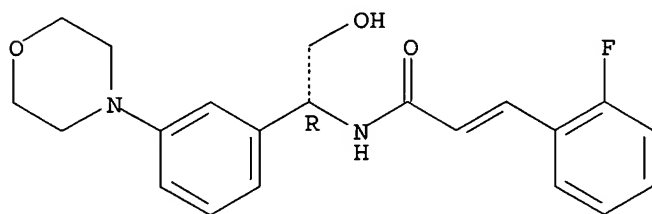
Absolute stereochemistry.



RN 701942-90-7 HCAPLUS

CN 2-Propenamide, 3-(2-fluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

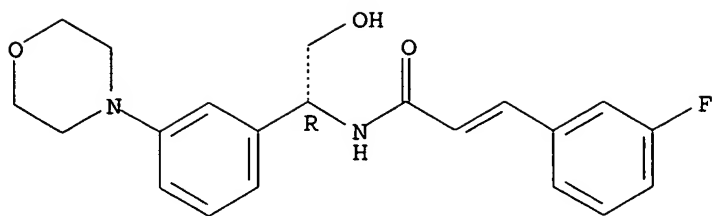
Absolute stereochemistry.  
Double bond geometry unknown.



RN 701942-91-8 HCAPLUS

CN 2-Propenamide, 3-(3-fluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

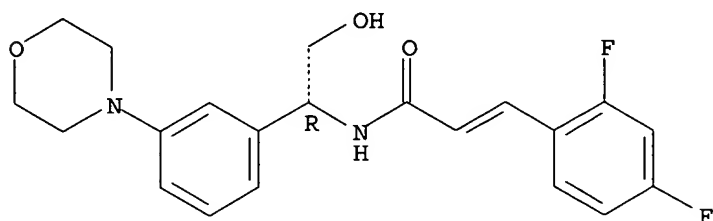
Absolute stereochemistry.  
Double bond geometry unknown.



RN 701942-92-9 HCAPLUS

CN 2-Propenamide, 3-(2,4-difluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

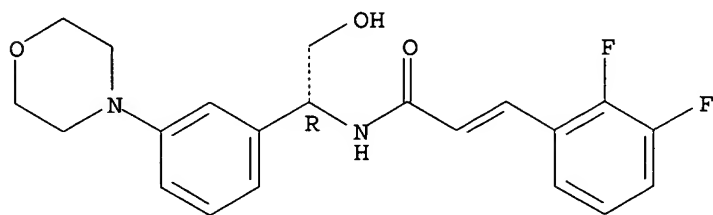
Absolute stereochemistry.  
Double bond geometry unknown.



RN 701942-93-0 HCAPLUS

CN 2-Propenamide, 3-(2,3-difluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

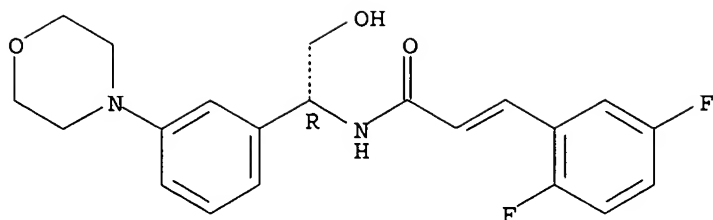
Absolute stereochemistry.  
Double bond geometry unknown.



RN 701942-94-1 HCAPLUS

CN 2-Propenamide, 3-(2,5-difluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

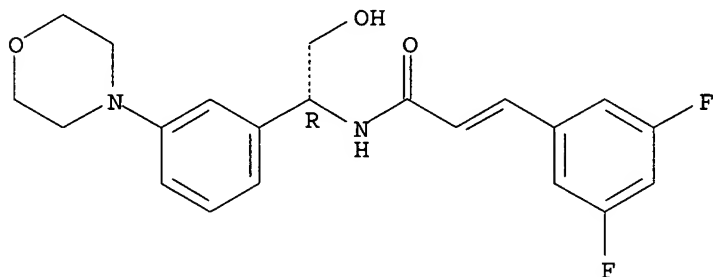
Absolute stereochemistry.  
Double bond geometry unknown.



RN 701942-95-2 HCAPLUS

CN 2-Propenamide, 3-(3,5-difluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

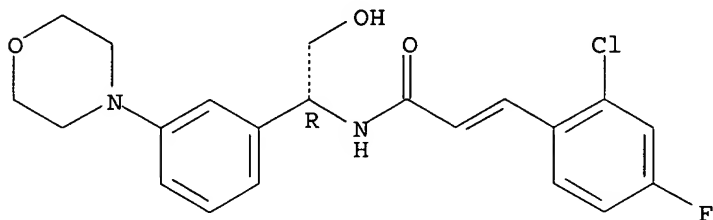
Absolute stereochemistry.  
Double bond geometry unknown.



RN 701942-96-3 HCAPLUS

CN 2-Propenamide, 3-(2-chloro-4-fluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

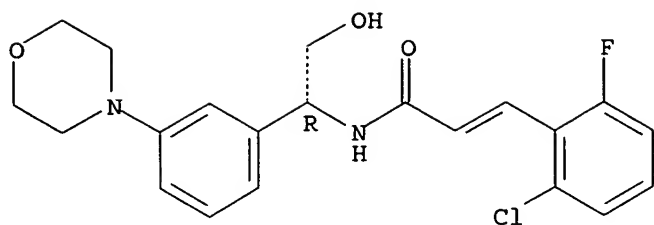
Absolute stereochemistry.  
Double bond geometry unknown.



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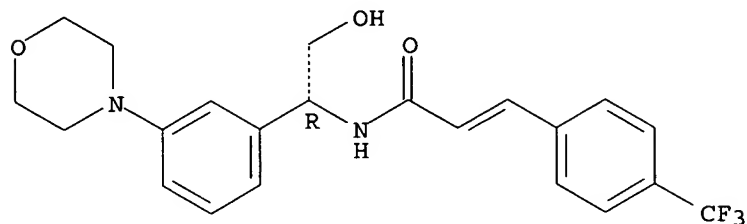
CN 2-Propenamide, 3-(2-chloro-6-fluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



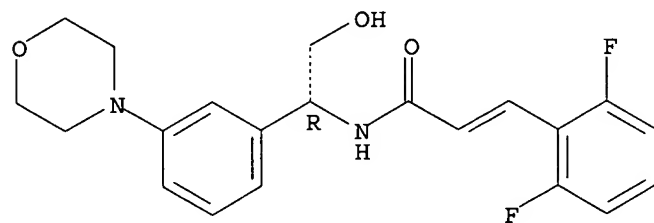
RN 701942-98-5 HCAPLUS  
 CN 2-Propenamide, N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]-3-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry unknown.



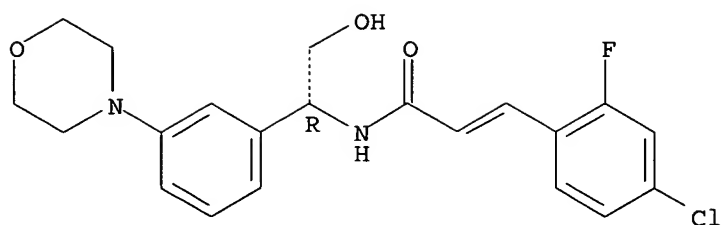
RN 701942-99-6 HCAPLUS  
 CN 2-Propenamide, 3-(2,6-difluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry unknown.



RN 701943-00-2 HCAPLUS  
 CN 2-Propenamide, 3-(4-chloro-2-fluorophenyl)-N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

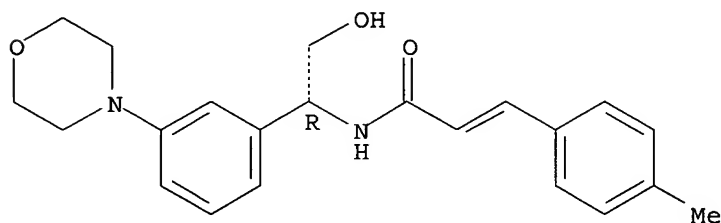
Absolute stereochemistry.  
 Double bond geometry unknown.



RN 701943-01-3 HCAPLUS

CN 2-Propenamide, N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]-3-(4-methylphenyl)- (9CI) (CA INDEX NAME)

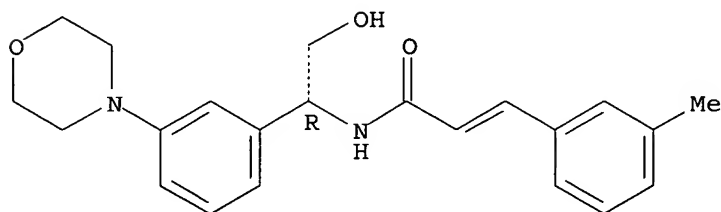
Absolute stereochemistry.  
Double bond geometry unknown.



RN 701943-02-4 HCAPLUS

CN 2-Propenamide, N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]-3-(3-methylphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.

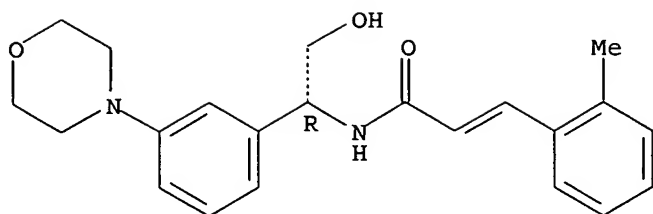


RN 701943-03-5 HCAPLUS

CN 2-Propenamide, N-[(1R)-2-hydroxy-1-[3-(4-morpholinyl)phenyl]ethyl]-3-(2-methylphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.

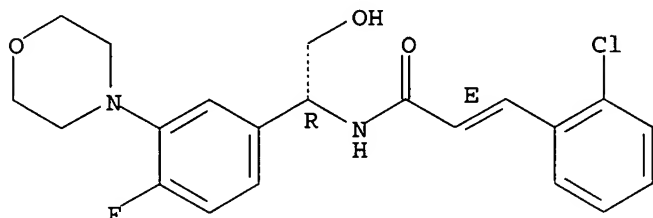




RN 701943-04-6 HCAPLUS

CN 2-Propenamide, 3-(2-chlorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)-(9CI) (CA INDEX NAME)

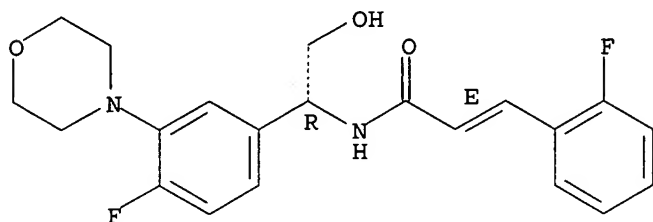
Absolute stereochemistry.  
Double bond geometry as shown.



RN 701943-05-7 HCAPLUS

CN 2-Propenamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-3-(2-fluorophenyl)-, (2E)-(9CI) (CA INDEX NAME)

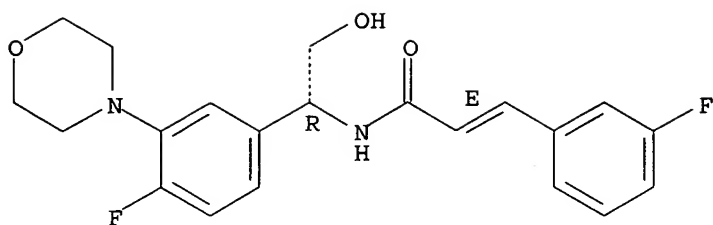
Absolute stereochemistry.  
Double bond geometry as shown.



RN 701943-06-8 HCAPLUS

CN 2-Propenamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-3-(3-fluorophenyl)-, (2E)-(9CI) (CA INDEX NAME)

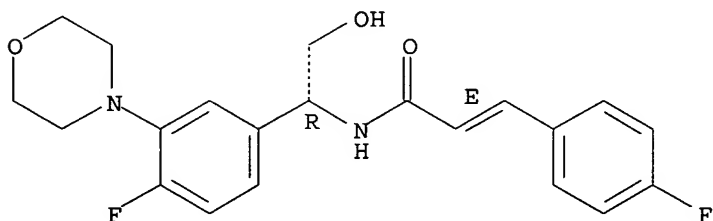
Absolute stereochemistry.  
Double bond geometry as shown.



RN 701943-07-9 HCAPLUS

CN 2-Propenamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-3-(4-fluorophenyl)-, (2E)- (9CI) (CA INDEX NAME)

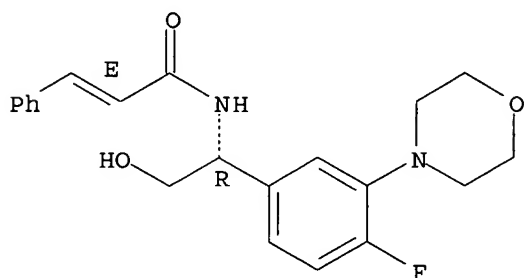
Absolute stereochemistry.  
Double bond geometry as shown.



RN 701943-08-0 HCAPLUS

CN 2-Propenamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-3-phenyl-, (2E)- (9CI) (CA INDEX NAME)

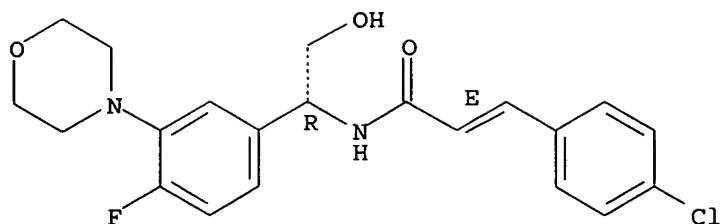
Absolute stereochemistry.  
Double bond geometry as shown.



RN 701943-09-1 HCAPLUS

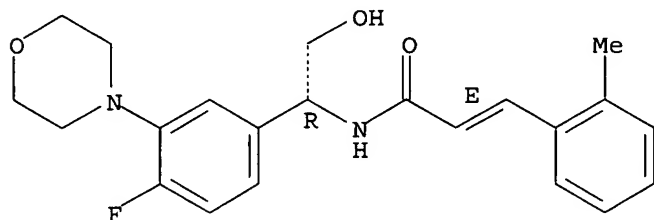
CN 2-Propenamide, 3-(4-chlorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



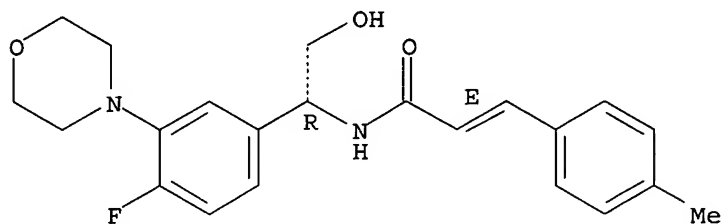
RN 701943-10-4 HCAPLUS  
 CN 2-Propenamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-3-(2-methylphenyl)-, (2E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



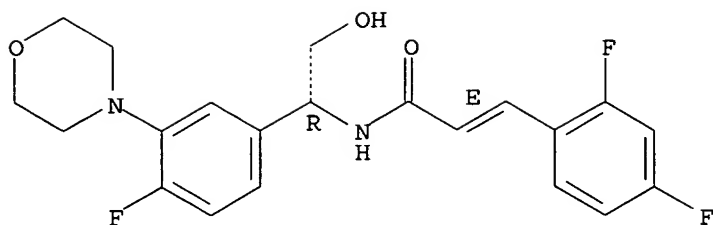
RN 701943-11-5 HCAPLUS  
 CN 2-Propenamide, N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-3-(4-methylphenyl)-, (2E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 701943-12-6 HCAPLUS  
 CN 2-Propenamide, 3-(2,4-difluorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)-(9CI) (CA INDEX NAME)

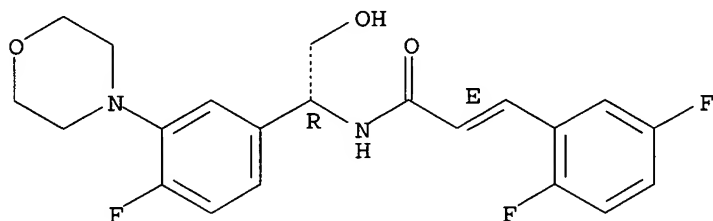
Absolute stereochemistry.  
 Double bond geometry as shown.



RN 701943-13-7 HCAPLUS

CN 2-Propenamide, 3-(2,5-difluorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)- (9CI) (CA INDEX NAME)

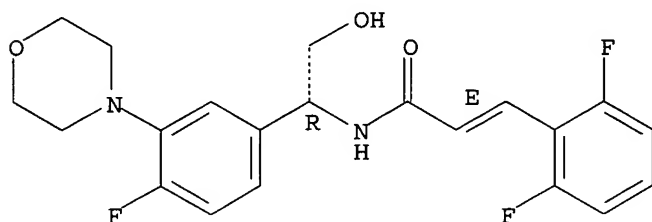
Absolute stereochemistry.  
Double bond geometry as shown.



RN 701943-14-8 HCAPLUS

CN 2-Propenamide, 3-(2,6-difluorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)- (9CI) (CA INDEX NAME)

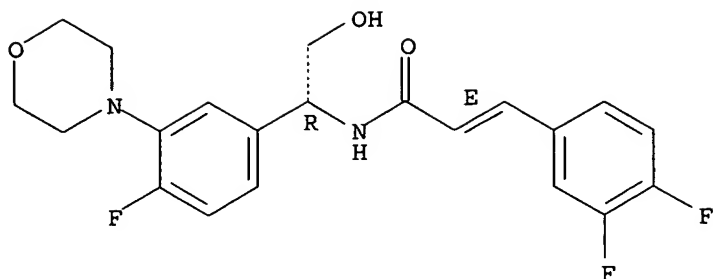
Absolute stereochemistry.  
Double bond geometry as shown.



RN 701943-15-9 HCAPLUS

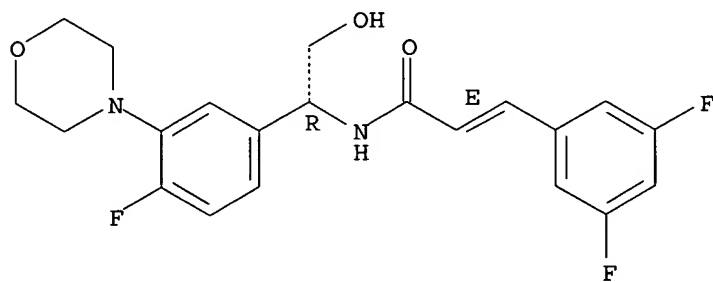
CN 2-Propenamide, 3-(3,4-difluorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



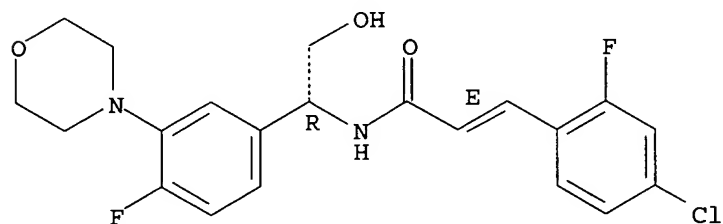
RN 701943-16-0 HCAPLUS  
 CN 2-Propenamide, 3-(3,5-difluorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



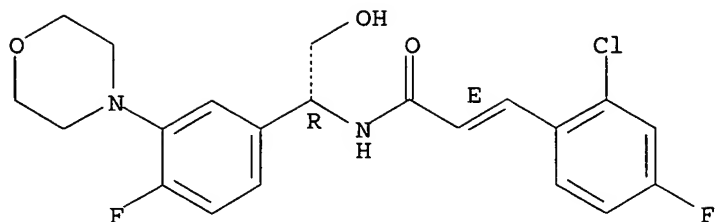
RN 701943-17-1 HCAPLUS  
 CN 2-Propenamide, 3-(4-chloro-2-fluorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 701943-18-2 HCAPLUS  
 CN 2-Propenamide, 3-(2-chloro-4-fluorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)-(9CI) (CA INDEX NAME)

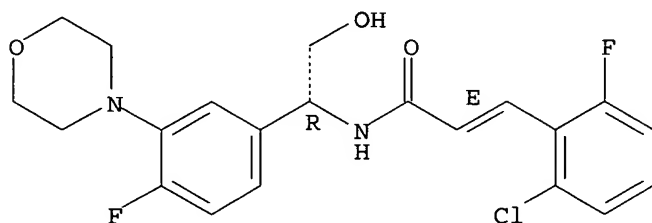
Absolute stereochemistry.  
 Double bond geometry as shown.



RN 701943-19-3 HCAPLUS

CN 2-Propenamide, 3-(2-chloro-6-fluorophenyl)-N-[(1R)-1-[4-fluoro-3-(4-morpholinyl)phenyl]-2-hydroxyethyl]-, (2E)-(9CI) (CA INDEX NAME)

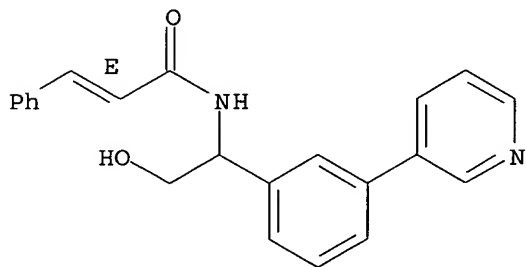
Absolute stereochemistry.  
Double bond geometry as shown.



RN 701943-91-1 HCAPLUS

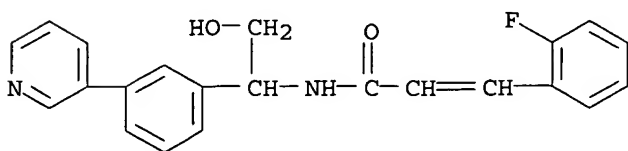
CN 2-Propenamide, N-[2-hydroxy-1-[3-(3-pyridinyl)phenyl]ethyl]-3-phenyl-, (2E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 701943-92-2 HCAPLUS

CN 2-Propenamide, 3-(2-fluorophenyl)-N-[2-hydroxy-1-[3-(3-pyridinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)



. ACCESSION NUMBER: 1999:629455 HCAPLUS  
 DOCUMENT NUMBER: 131:351666  
 TITLE: Two Syntheses of the 16- and 17-Membered DEF Ring Systems of Chloropeptin and Complestatin  
 AUTHOR(S): Elder, Amy M.; Rich, Daniel H.  
 CORPORATE SOURCE: Department of Chemistry and School of Pharmacy, University of Wisconsin, Madison, WI, 53706, USA  
 SOURCE: Organic Letters (1999), 1(9), 1443-1446  
 CODEN: ORLEF7; ISSN: 1523-7060  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 131:351666

AB Two syntheses of a model system of the DEF ring system of complestatin and chloropeptin are described. The key step in both of these syntheses involves the formation of the biaryl linkage using a palladium-catalyzed Suzuki cross-coupling reaction and a catalytic enantioselective ene reaction to form the 6-bromo-D-tryptophan. Addnl., ring contraction of the 17-membered DEF ring system of complestatin generates the 16-membered DEF ring system of chloropeptin in a biomimetic fashion.

IT 250608-85-6P 250608-86-7P 250608-87-8P

250608-88-9P 250608-89-0P

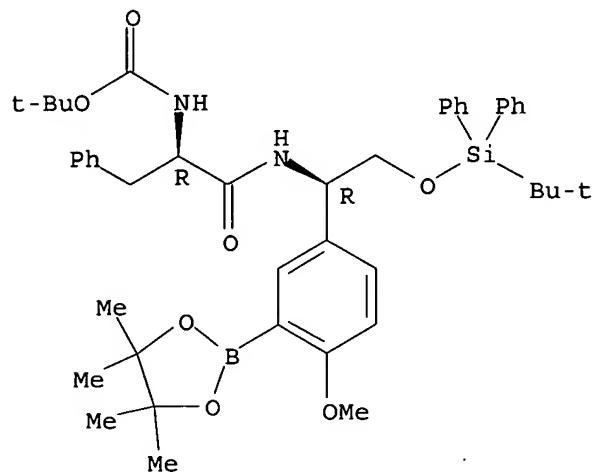
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of in the synthesis of the 16- and 17-membered DEF ring systems of chloropeptin and complestatin)

RN 250608-85-6 HCAPLUS

CN 8-Oxa-2,5-diaza-9-silaundecanoic acid, 6-[4-methoxy-3-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]-10,10-dimethyl-4-oxo-9,9-diphenyl-3-(phenylmethyl)-, 1,1-dimethylethyl ester, (3R,6R)- (9CI) (CA INDEX NAME)

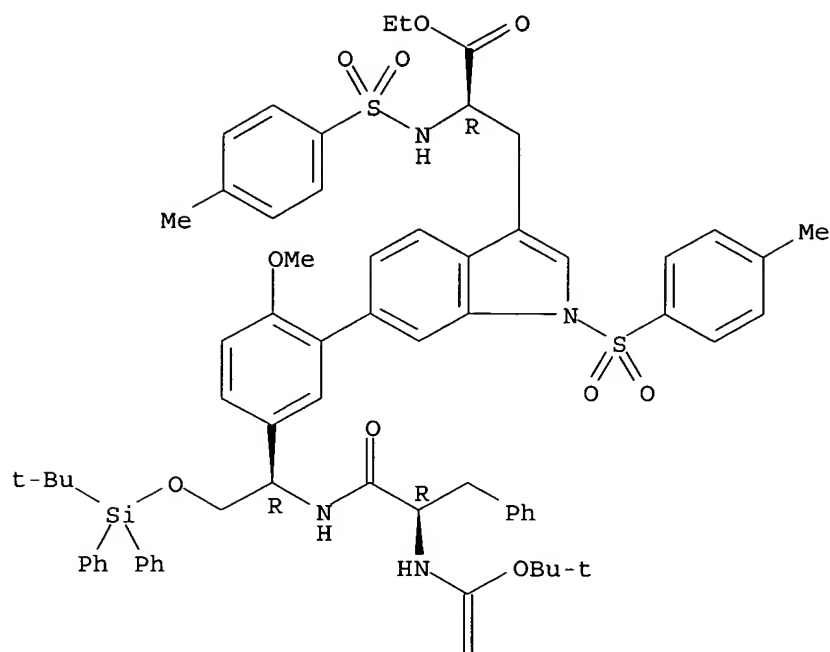
Absolute stereochemistry.



RN 250608-86-7 HCAPLUS

CN D-Tryptophan, 6-[5-[(1R)-1-[[[(2R)-2-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-oxo-3-phenylpropyl]amino]-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]ethyl]-2-methoxyphenyl]-N,1-bis[(4-methylphenyl)sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

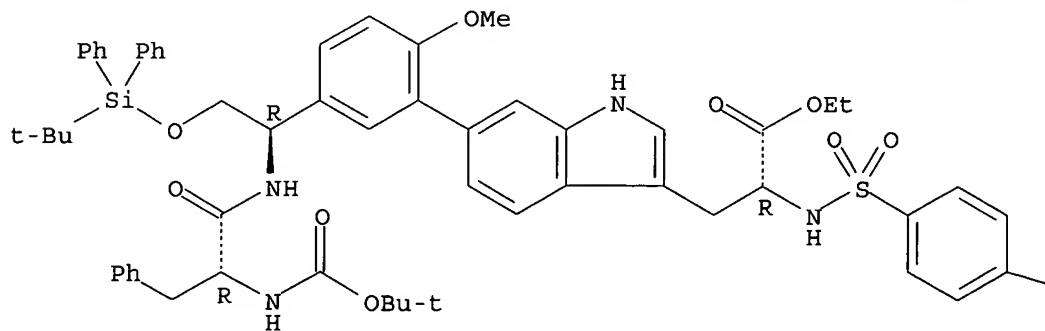
Absolute stereochemistry.



RN 250608-87-8 HCAPLUS

CN D-Tryptophan, 6-[5-[(1R)-1-[[[(2R)-2-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-oxo-3-phenylpropyl]amino]-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]ethyl]-2-methoxyphenyl]-N-[(4-methylphenyl)sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.





PAGE 1-B

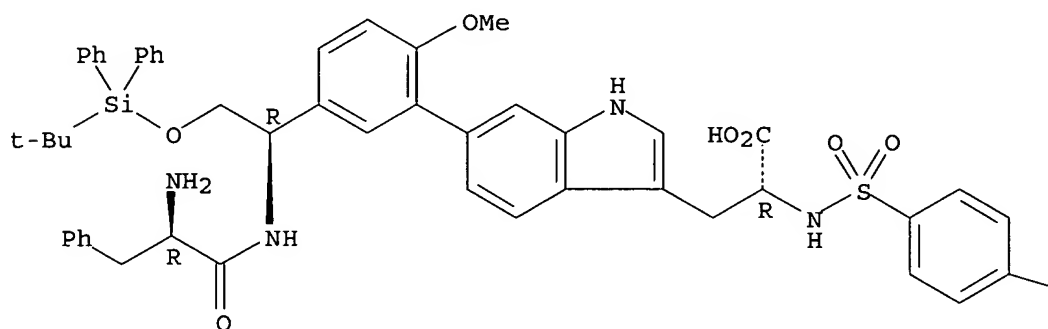
Me

RN 250608-88-9 HCAPLUS

CN D-Tryptophan, 6-[5-[(1R)-1-[[ (2R)-2-amino-1-oxo-3-phenylpropyl]amino]-2-[[ (1,1-dimethylethyl)diphenylsilyl]oxy]ethyl]-2-methoxyphenyl]-N-[(4-methylphenyl)sulfonyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



● HCl

PAGE 1-B

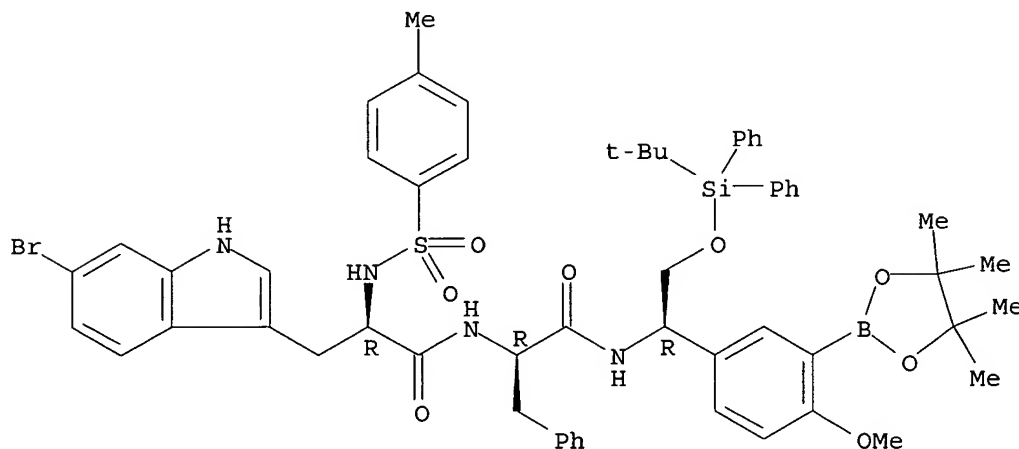
Me

RN 250608-89-0 HCAPLUS

CN D-Phenylalaninamide, 6-bromo-N-[(4-methylphenyl)sulfonyl]-D-tryptophyl-N-

[(1R)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-[4-methoxy-3-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 250608-77-6

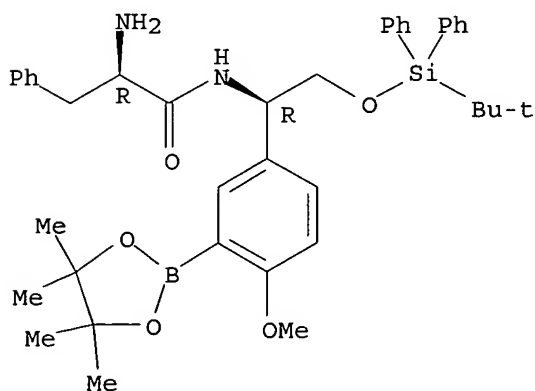
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of in the synthesis of the 16- and 17-membered DEF ring systems of chloropeptin and complestatin)

RN 250608-77-6 HCAPLUS

CN Benzenepropanamide,  $\alpha$ -amino-N-[(1R)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-[4-methoxy-3-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]ethyl]-, monohydrochloride, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT:

26

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:238389 HCAPLUS

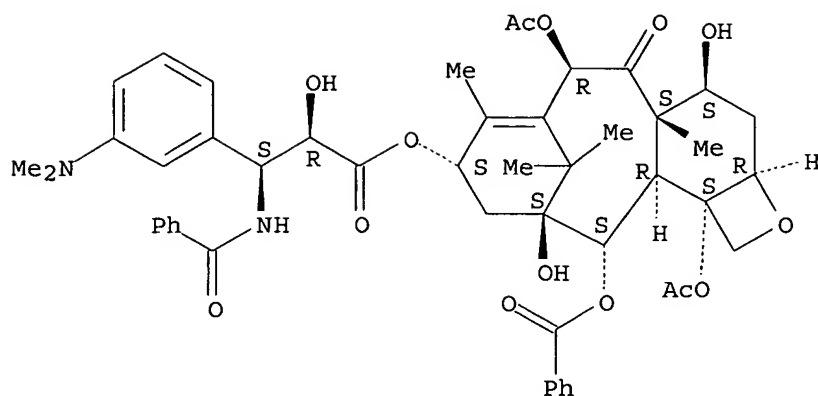
DOCUMENT NUMBER: 126:287587  
 TITLE: Probing the Environment of Tubulin-Bound Paclitaxel Using Fluorescent Paclitaxel Analogs  
 AUTHOR(S): Sengupta, Suparna; Boge, Thomas C.; Liu, Yanbin; Hepperle, Michael; Georg, Gunda I.; Himes, Richard H.  
 CORPORATE SOURCE: Departments of Biochemistry and Medicinal Chemistry, University of Kansas, Lawrence, KS, 66045, USA  
 SOURCE: Biochemistry (1997), 36(17), 5179-5184  
 CODEN: BICHAW; ISSN: 0006-2960  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB To determine the environment of different positions in the paclitaxel mol. when bound to tubulin, we have synthesized six fluorescent analogs in which a (dimethylamino)benzoyl group has been introduced into the 7- and 10-positions, and the benzoyl groups at the 2- and N- as well as the 3'-Ph ring have been modified with dimethylamino functions. In a tubulin assembly assay, the N-m- and N-p-(dimethylamino)benzoyl derivs. had activities comparable to the activity of paclitaxel. The 2-, 3'-, and 10-analogs had slightly reduced activity, and the 7-derivative was about 5% as active as paclitaxel. On the basis of the results of studies of the effect of solvents on the fluorescence emission spectra, it is proposed that the unbound analogs form hydrogen bonds with protic solvents. But the 7- and 10-substituted analogs appear to be more affected by protic solvents than the other analogs. Previously, we studied the binding of the N-meta derivative to tubulin and microtubules [Sengupta, S., et al. (1995) Biochem. 34, 11889-11894]. In this study, we extended the studies to include the 2-, 7-, and 10-derivs. Similar to the N-substituted analog, binding of the 2-derivative to tubulin was accompanied by a large blue shift, whereas a very small shift occurred when the 7- and 10-substituted derivs. bound. The 2- and N-substituted analogs bind to microtubules with an increase in fluorescence intensity over that which was observed with tubulin, whereas binding of the 7- and 10-substituted analogs was accompanied by a large quenching in fluorescence. This quenching may be due to the presence of charged residues in the protein near the 7- and 10-(dimethylamino)benzoyl groups or to  $\pi$  stacking of the groups with an aromatic side chain. The presence of paclitaxel with microtubules prevented the fluorescence increase of the 2- and N-derivs. and quenching of the 7- and 10-derivs. The difference in behavior of the fluorescent analogs upon binding to polymerized tubulin, coupled with the solvent studies on the free drugs, suggests that the 2- and N-benzoyl groups of paclitaxel bind in a hydrophobic pocket of tubulin but could participate in hydrogen bonding, and the 7- and 10-positions are in a more hydrophilic environment.

IT 160313-76-8  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (tubulin binding by fluorescent paclitaxel analogs)

RN 160313-76-8 HCAPLUS  
 CN Benzenepropanoic acid,  $\beta$ -(benzoylamino)-3-(dimethylamino)- $\alpha$ -hydroxy-, 6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, [2aR-[2 $\alpha$ ,4 $\beta$ ,4a $\beta$ ,6 $\beta$ ,9 $\alpha$ ( $\alpha$ R\*, $\beta$ S\*),11 $\alpha$ ,12 $\alpha$ ,12a $\alpha$ ,12b $\alpha$ ]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:120883 HCAPLUS

DOCUMENT NUMBER: 122:81681

TITLE: Synthesis and biology of substituted 3'-phenyl taxol analogs

AUTHOR(S): Georg, Gunda I.; Cheruvallath, Zacharia S.; Harriman, Geraldine C. B.; Hepperle, Michael; Park, Haeil; Himes, Richard H.

CORPORATE SOURCE: Department of Medicinal Chemistry, University of Kansas, Lawrence, KS, 66045, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (1994), 4(19), 2331-6

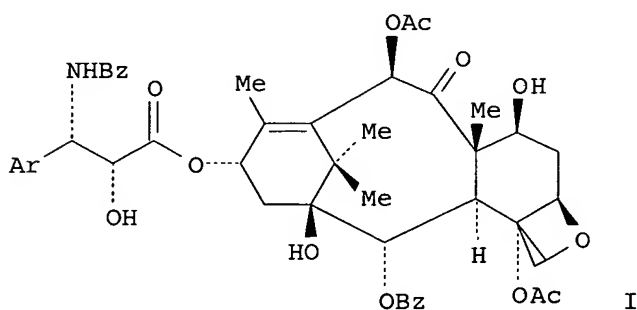
CODEN: BMCLE8; ISSN: 0960-894X

DOCUMENT TYPE: Journal

LANGUAGE: English

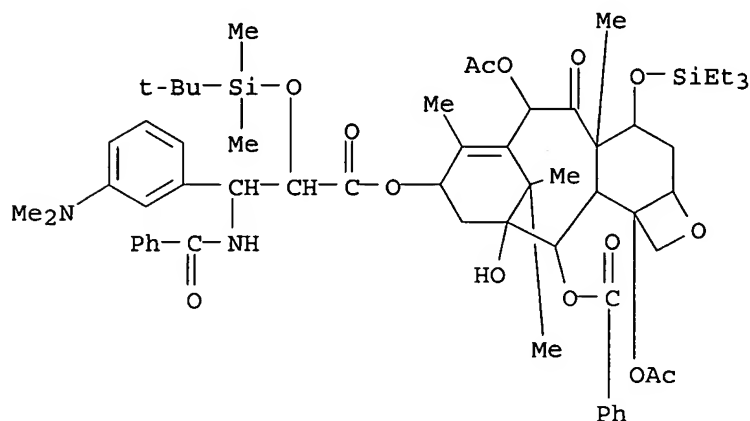
OTHER SOURCE(S): CASREACT 122:81681

GI



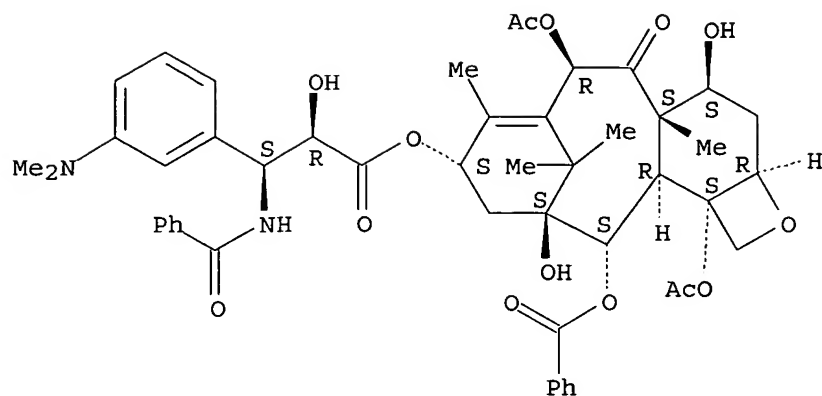
AB A series of substituted 3'-Ph taxol analogs I (Ar = 4-ClC<sub>6</sub>H<sub>4</sub>, 4-MeC<sub>6</sub>H<sub>4</sub>, 4-MeOC<sub>6</sub>H<sub>4</sub>, 2-MeC<sub>6</sub>H<sub>4</sub>, etc.), directed by the Topliss Operational Scheme, were synthesized and evaluated for their biol. activity. The novel analogs were prepared from baccatin III and N-acyl  $\beta$ -lactams. Evaluation in the microtubule assembly assay and for cytotoxicity against B16 melanoma cells illustrated a modest influence of aromatic substitution on bioactivity.

IT 160314-00-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of taxol analogs, their tubulin assembly promotion and antitumor activity)  
 RN 160314-00-1 HCAPLUS  
 CN Benzenepropanoic acid,  $\beta$ -(benzoylamino)-3-(dimethylamino)- $\alpha$ -[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-, 6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4a,8,13,13-tetramethyl-5-oxo-4-[(triethylsilyl)oxy]-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, [2aR-[2a $\alpha$ ,4 $\beta$ ,4a $\beta$ ,6 $\beta$ ,9 $\alpha$ ( $\alpha$ R\*, $\beta$ S\*),11 $\alpha$ ,12 $\alpha$ ,12a $\alpha$ ,12b $\alpha$ ]]- (9CI) (CA INDEX NAME)



IT 160313-76-8P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation, tubulin assembly promotion, and antitumor activity)  
 RN 160313-76-8 HCAPLUS  
 CN Benzenepropanoic acid,  $\beta$ -(benzoylamino)-3-(dimethylamino)- $\alpha$ -hydroxy-, 6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, [2aR-[2a $\alpha$ ,4 $\beta$ ,4a $\beta$ ,6 $\beta$ ,9 $\alpha$ ( $\alpha$ R\*, $\beta$ S\*),11 $\alpha$ ,12 $\alpha$ ,12a $\alpha$ ,12b $\alpha$ ]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1982:68704 HCAPLUS

DOCUMENT NUMBER: 96:68704

TITLE: Cephalosporin derivatives and pharmaceutical compositions containing them

INVENTOR(S): Wehrli, Hansuli; Kocsis, Karoly; Scartazzini, Riccardo

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Eur. Pat. Appl., 177 pp.

CODEN: EPXXDW

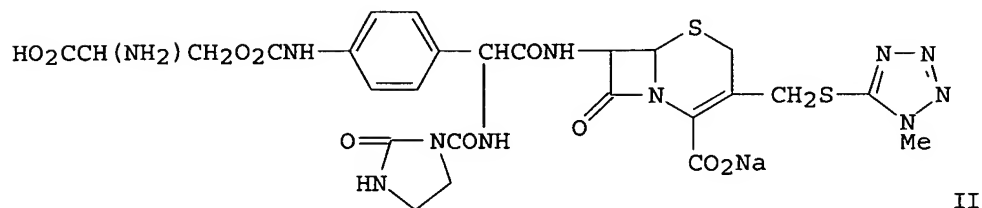
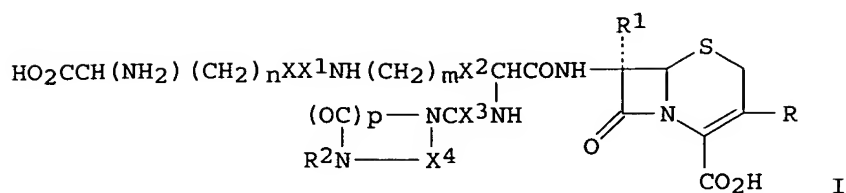
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.                                | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| EP 31794                                  | A2   | 19810708 | EP 1980-810386  | 19801215   |
| EP 31794                                  | A3   | 19820203 |                 |            |
| R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE |      |          |                 |            |
| US 4464366                                | A    | 19840807 | US 1980-214155  | 19801208   |
| ES 497849                                 | A1   | 19811116 | ES 1980-497849  | 19801217   |
| DK 8005408                                | A    | 19810620 | DK 1980-5408    | 19801218   |
| AU 8065518                                | A1   | 19810625 | AU 1980-65518   | 19801218   |
| ZA 8007914                                | A    | 19820127 | ZA 1980-7914    | 19801218   |
| JP 56103186                               | A2   | 19810818 | JP 1980-181821  | 19801219   |
| PRIORITY APPLN. INFO.:                    |      |          | CH 1979-11283   | A 19791219 |
| GI  |      |          |                 |            |



AB Cephalosporins I [m = 0, 1; n = 1-4; p = 1, 2; X = O, S, NH, bond; X1 = CO, CONHSO<sub>2</sub>, SO<sub>2</sub>NHCO; X2 = (un)substituted phenylene, thienylene, furylene; X3 = O, S; X4 = alkylene; R = H, alkyl, alkoxy, halo, esterified or etherified CH<sub>2</sub>OH, CH<sub>2</sub>SH, ammoniummethyl; R1 = H, OMe; R2 = H, (un)substituted alkyl, cycloalkyl, acyl] were prepared as bactericides (no data). Thus II was obtained from the aminocephem by a 2-step acylation and deblocking.

IT 79537-77-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

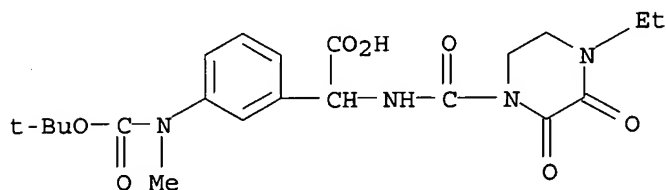
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(1)  (preparation and acylation of aminocephems by)

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RN 79537-77-2 HCAPLUS

CN Benzeneacetic acid, 3-[[[(1,1-dimethylethoxy)carbonyl]methylamino]- $\alpha$ -  
[[[4-ethyl-2,3-dioxo-1-piperazinyl]carbonyl]amino]- (9CI) (CA INDEX NAME)



IT 79537-79-4P 79553-65-4P

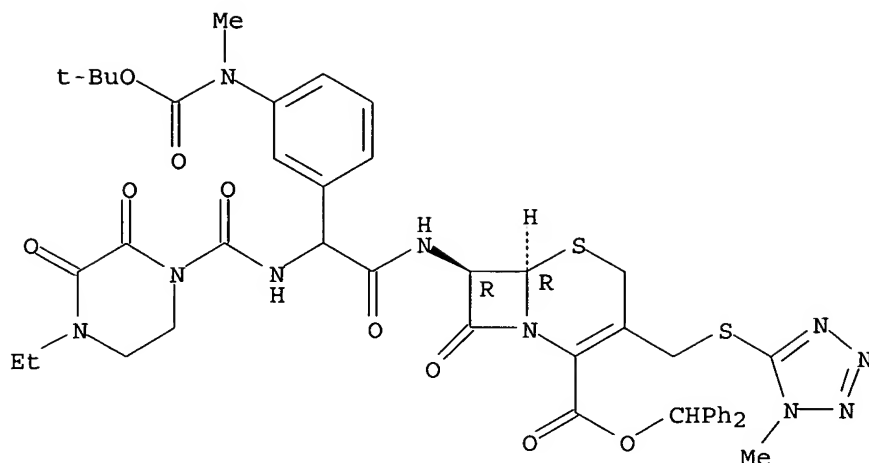
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and deblocking of)

RN 79537-79-4 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[[3-[[[(1,1-dimethylethoxy)carbonyl]methylamino]phenyl][[(4-ethyl-2,3-dioxo-1-piperazinyl)carbonyl]amino]acetyl]amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-, diphenylmethyl ester, [6R-(6 $\alpha$ ,7 $\beta$ )]-(9CI) (CA INDEX NAME)

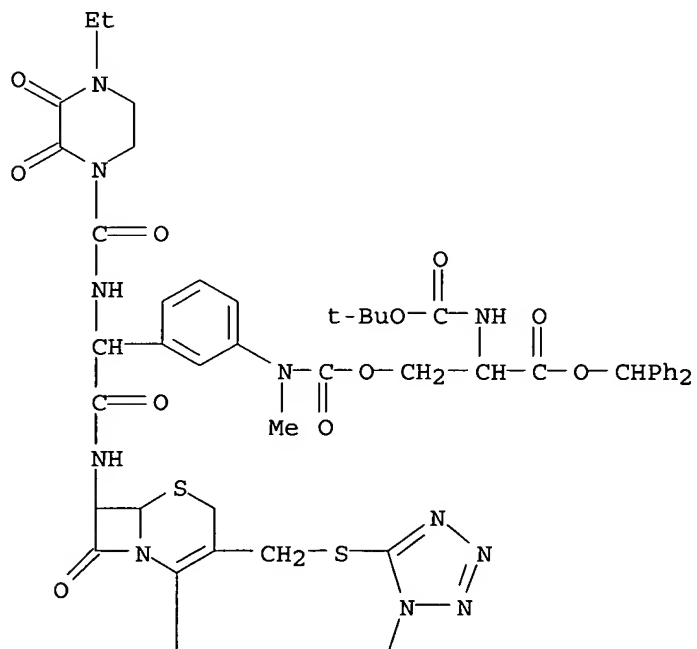
Absolute stereochemistry.



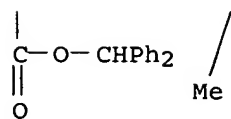
RN 79553-65-4 HCAPLUS

CN D-Serine, N-[(1,1-dimethylethoxy)carbonyl]-, diphenylmethyl ester, [3-[2-[2-[(diphenylmethoxy)carbonyl]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-7-yl]amino]-1-[[[4-ethyl-2,3-dioxo-1-piperazinyl]carbonyl]amino]-2-oxoethyl]phenyl]methylcarbamate (ester), [6R-(6 $\alpha$ ,7 $\beta$ )]- (9CI)  
(CA INDEX NAME)

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